

Application No: 10/821,788

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1. (Currently Amended) An HMD device comprising an image-generating unit for generating a polychromatic image and deflection optics comprising first and second partial optics, said deflection optics projecting the image such that it is perceivable by a user wearing said HMD device, wherein the two partial optics each contain a diffractive optical unit for beam deflection, which are designed such that their dispersion errors compensate each other[.], and wherein the second partial optics are arranged in front of the eye of a user wearing the HMD device so as to allow the user to perceive his environment through said optics, and the second partial optics have a refractive effect for correction of visual deficiencies of the user wearing the HMD device.

2. (Original) The HMD device as claimed in Claim 1, wherein use is made of a non-zeroth order of diffraction of the diffractive optical units for beam deflection.

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3. (Original) The HMD device as claimed in Claim 2, wherein the same order of diffraction is used for both diffractive optical units.
4. (Original) The HMD device as claimed in Claim 1, wherein the diffractive optical unit of at least one of the first and second partial optics is provided as a line grating.
5. (Original) The HMD device as claimed in Claim 4, wherein the line grating serves the purpose of beam deflection.
6. (Currently Amended) The HMD device as claimed in Claim 4, wherein the line grating ~~only~~ serves the purpose of beam deflection and also as an imaging optical element.
7. (Original) The HMD device as claimed in Claim 6, wherein the grating constant of the line grating varies with respect to the imaging effect.
8. (Original) The HMD device as claimed in Claim 4, wherein the line grating is formed on or in a curved material interface.
9. (Original) The HMD device as claimed in Claim 8, wherein the material interface is spherically curved.

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10. (Original) The HMD device as claimed in Claim 9, wherein said deflection optics comprise a refractive element having a first and a second side, said first side being said spherically curved material interface.
11. (Original) The HMD device as claimed in Claim 10, wherein said line grating formed on or in said spherically curved material interface is adapted to provide a desired aspherical effect.
12. (Original) The HMD device as claimed in Claim 4, wherein the line grating is formed on or in a planar material interface.
13. (Cancelled)
14. (Original) The HMD device as claimed in Claim 13, wherein the user can see through the diffractive optical unit of the second partial optics in the zeroth order of diffraction.
15. (Cancelled)